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(FILE 'HOME' ENTERED AT 17:03:58 ON 21 JUL 2004)

FILE 'CAPLUS' ENTERED AT 17:04:32 ON 21 JUL 2004

E POLYSILOXANE

L1	1 S E2
L2	57766 S E3
L3	644148 S POWDER
L4	85301 S METAL(W) OXIDE
L5	132 S L4 AND L3 AND L2
L6	77890 S TITANIUM(W) OXIDE
L7	50636 S ZIRCONIUM(W) OXIDE
L8	119003 S L7 OR L6
L9	36 S L8 AND L5

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TITLE: Photocatalyst layer composition and photocatalyst holding material  
INVENTOR(S): Kimura, Nobuo; Ono, Kazuo; Funamoto, Akihiko  
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002045705	A2	20020212	JP 2000-239827	20000808

PRIORITY APPLN. INFO.: JP 2000-239827 20000808

AB The photocatalyst layer composition contains a modified silicone resin, a silane compound, a **metal oxide** and/or a metal hydroxide gel, and a photocatalyst **powder** and/or gel. The material comprises a substrate coated with an adhesive layer and a photocatalyst layer containing the composition. Adhesion between the layers is well, decomposition of the adhesive layer by the photocatalyst is prevented, and the material shows good transparency and cracking and interference color are prevented.

L9 ANSWER 11 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:71822 CAPLUS  
DOCUMENT NUMBER: 136:107273  
TITLE: Decorative cosmetic preparations containing dialkyl carbonates and **metal oxides**  
INVENTOR(S): Corbella, Alberto; Ansmann, Achim; Kawa, Rolf; Naggiar, Samir F.  
PATENT ASSIGNEE(S): Cognis Deutschland G.m.b.H., Germany  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005759	A1	20020124	WO 2001-EP7820	20010707
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10035071	A1	20020131	DE 2000-10035071	20000717
EP 1301160	A1	20030416	EP 2001-957933	20010707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
BR 2001012537	A	20030701	BR 2001-12537	20010707
JP 2004503571	T2	20040205	JP 2002-511693	20010707
US 2003180374	A1	20030925	US 2003-333094	20030501

PRIORITY APPLN. INFO.: DE 2000-10035071 A 20000717  
WO 2001-EP7820 W 20010707

AB The invention relates to cosmetic preps. that contain based on their final concentration (a) 3 to 20 weight- dialkyl carbonates and (b) 4 to 30 weight- **metal oxides**, with the proviso that the indicated quantities add up to 100 weight- by optionally adding water and other

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adjuvants and additives. Thus a foundation cream contained (weight/weight%): dioctylcarbonate 6; hexyldecanol and hexyldecyl laurate 11; cocoglycerides 12; di-Bu adipate 4; Veegum plus 1.5; Xanthan gum 0.5; titanium dioxide 5; iron oxide 2; glycerin 3; water to 100.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:435189 CAPLUS

DOCUMENT NUMBER: 135:26877

TITLE: Fine **metal oxide powder**  
having high dispersibility and toner composition  
comprising the same

INVENTOR(S): Murota, Masamichi; Morii, Toshio; Shirono, Hirokuni

PATENT ASSIGNEE(S): Nippon Aerosil Co., Ltd., Japan

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042372	A1	20010614	WO 2000-JP8720	20001208
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1249474	A1	20021016	EP 2000-980023	20001208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2003077533	A1	20030424	US 2002-148212	20020905
US 6677095	B2	20040113		
PRIORITY APPLN. INFO.:		JP 1999-348351	A	19991208
		WO 2000-JP8720	W	20001208

AB A fine **metal oxide powder** having been subjected to a surface treatment so as to have hydrophobicity and being usable as an additive for a **powder** material, wherein the peak value of particle size distribution for agglomerated particles of the fine **powder** is of the same level or less as compared to the average particle diameter of the above **powder** material. The fine **metal oxide powder** exhibits high dispersibility in the **powder** material and thus can be used as an additive for producing a toner for an electronic photog. which is markedly improved in initial build-up property of charge, image characteristics and cleaning property.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:712944 CAPLUS

DOCUMENT NUMBER: 133:286220

TITLE: Two phase sunscreen dispersion compositions

INVENTOR(S): Fukui, Hiroshi; Nagaya, Kyoko; Kobayashi, Kayoko; Ogawa, Katsumoto

PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

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LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000281552	A2	20001010	JP 1999-82083	19990325

PRIORITY APPLN. INFO.: JP 1999-82083 19990325

AB The invention relates to a 2 phase sunscreen dispersion composition having improved redispersibility, transparency, and use feel, wherein the dispersion contains fine TiO<sub>2</sub> particles and/or fine ZnO particles, and an amphiphilic dispersing agent, especially higher fatty acid. A sunscreen composition containing di-Me **polysiloxane** 15, trimethylsiloxy silicate 3, isostearic acid 2, fatty acid soap-treated TiO<sub>2</sub> fine particle 10, fatty acid soap-treated ZnO fine particle 7, spherical nylon **powder** 8, and antioxidant and fragrance and decamethylcyclopentasiloxane q.s. to 100 % was prepared

L9 ANSWER 14 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:631839 CAPLUS  
DOCUMENT NUMBER: 133:227583  
TITLE: Cosmetic **powder** compositions  
INVENTOR(S): Maruyama, Shuji; Torizuka, Makoto  
PATENT ASSIGNEE(S): Kao Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000247839	A2	20000912	JP 1999-50962	19990226

PRIORITY APPLN. INFO.: JP 1999-50962 19990226

AB The invention relates to a a cosmetic **powder** composition, especially a foundation, suitable for use with a container having a mesh screen, wherein the composition contains pigment **powder** and elastic **powder**, so that plugging of the mesh by the **powder** during usage is prevented. A **powder** foundation containing reaction product of poly(N-propionylethyleneimine) with aminopropyl-modified dimethylsiloxane 10, TiO<sub>2</sub> 5, red iron oxide 2, yellow iron oxide 4, black iron oxide 1, TiO<sub>2</sub> fine particle 5, mica 57.9, di-Me **polysiloxane** 10, UV-absorber 5, and preservative 0.1 % was prepared

L9 ANSWER 15 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:631837 CAPLUS  
DOCUMENT NUMBER: 133:227581  
TITLE: Cosmetic **powder** compositions  
INVENTOR(S): Maruyama, Shuji; Torizuka, Makoto; Ito, Gensho  
PATENT ASSIGNEE(S): Kao Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000247835	A2	20000912	JP 1999-50961	19990226

PRIORITY APPLN. INFO.: JP 1999-50961 19990226

AB The invention relates to a cosmetic **powder** composition providing light use feel and natural gloss, wherein the **powder** composition contains pigment **powder**, e.g. TiO<sub>2</sub>, ZnO<sub>2</sub>, iron oxide, and tar dye, and **powder** having specified gloss property, e.g. **metal oxide-coated powder**. A foundation containing TiO<sub>2</sub>-coated mica (Timiron super silk MP-1005) 10, nylon **powder** 10, TiO<sub>2</sub> 5, red iron oxide 2, yellow iron oxide 4, black iron oxide 1, TiO<sub>2</sub> fine particle 5, talc 52.9, dimethylpolysiloxane 5, UV-absorber 5, and preservative 0.1 % was prepared

L9 ANSWER 16 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:503426 CAPLUS

DOCUMENT NUMBER: 133:124945

TITLE: **Metal oxide**-cerium oxide complex particles for use in cosmetics, and manufacture thereof

INVENTOR(S): Yabe, Nobuyoshi; Toufukuji, Kota; Momose, Shigesada; Yoshida, Sakae; Tahira, Kazuyuki; Sato, Tsugio

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan; Nippon Muki Kagaku Kogyo K. K.

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000203835	A2	20000725	JP 1998-373553	19981228

PRIORITY APPLN. INFO.: JP 1998-373553 19981228

AB The invention relates to **metal oxide**-cerium oxide complex particles suitable for use in a cosmetic composition, wherein the **metal oxide**-cerium oxide complex particle has a L\* value of  $\geq 80$ , an a\* value of -4-4, and a b\* value of -10-10 which express white in the L\*a\*b\* color space. Silica-cerium oxide complex fine particles were prepared, and combined with other ingredients to obtain a cream foundation.

L9 ANSWER 17 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:403845 CAPLUS

DOCUMENT NUMBER: 133:22163

TITLE: Use of a specific particulate phase comprising polymers and **metal oxides** in cosmetic compositions

INVENTOR(S): Simon, Jean Christophe

PATENT ASSIGNEE(S): Oreal S. A., Fr.

SOURCE: Fr. Demande, 20 pp.  
CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2784026	A1	20000407	FR 1998-12502	19981006
FR 2784026	B1	20001124		
BR 9907470	A	20010206	BR 1999-7470	19990929
EP 997134	A1	20000503	EP 1999-402383	19990930
EP 997134	B1	20011114		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 208600	E	20011115	AT 1999-402383	19990930
ES 2163321	T3	20020116	ES 1999-402383	19990930
US 6333053	B1	20011225	US 1999-411384	19991004
KR 2000028847	A	20000525	KR 1999-42821	19991005
CN 1256118	A	20000614	CN 1999-123893	19991005
MX 9909108	A	20001031	MX 1999-9108	19991005
JP 2000119136	A2	20000425	JP 1999-285196	19991006

PRIORITY APPLN. INFO.: FR 1998-12502 A 19981006

AB The invention is about a specific particulate phase (5-100  $\mu$ m) comprising polymers and **metal oxides** in a cosmetic compns., especially makeups, and composition containing this phase. A cosmetic emulsion contained Abil WE09 9, Unitwix 0.5, cyclomethicone 25, diphenyldimethicone 6, isododecane 4.55, hectorite 4, particulate phase prepared by grinding a polyacrylate film 10, crotonic acid-vinyl acetate-vinyl p-tetrtio-Bu benzoate copolymer 20, diisopropyl adipate 1, and water q.s.100 g.

L9 ANSWER 18 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:25745 CAPLUS

DOCUMENT NUMBER: 132:94746

TITLE: Water-repellent silicone resin coatings and coated articles

INVENTOR(S): Takahama, Koichi; Inoue, Minoru; Goto, Akiharu; Yamaki, Takeyuki

PATENT ASSIGNEE(S): Matsushita Electric Works, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000007991	A2	20000111	JP 1998-176331	19980623

PRIORITY APPLN. INFO.: JP 1998-176331 19980623

AB The coatings, suitable for metal, glass, ceramics, cements, wood, etc., contain silicone resins (e.g., hydrolytic condensate of alkoxysilanes) and 40-80 parts (based on 100 parts solids of the coatings) **metal oxides powders** having number-average primary particle diameter  $\leq 30$  nm. The **metal oxides** are selected from **titanium oxide**, silica, and aluminum oxide.

L9 ANSWER 19 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:472263 CAPLUS

DOCUMENT NUMBER: 131:138222

TITLE: **Powder** magnetic cores, their manufacture, and low-loss winding parts

INVENTOR(S): Chiba, Tatsuya

PATENT ASSIGNEE(S): Tokin Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF

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L9 ANSWER 1 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:249489 CAPLUS  
DOCUMENT NUMBER: 140:274698  
TITLE: Porous materials, their composites, and pump parts  
INVENTOR(S): Takayama, Hirokazu; Sakamoto, Katsuhiko  
PATENT ASSIGNEE(S): Ebara Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004091267	A2	20040325	JP 2002-255555	20020830
PRIORITY APPLN. INFO.:			JP 2002-255555	20020830

AB Porous materials comprising aggregate **powders** of metals or their oxides, carbides, or nitrides that are bonded with silicone which is solid at standard temperature are claimed. Porous inorg. materials, comprising silica-containing glass, prepared from the said materials by their impregnation with alkoxides and optionally silicates followed by firing are also claimed. Composites of the said both porous materials impregnated with metals or ceramics and pump parts made of the composites or the porous materials are also claimed. The materials are prepared at low firing temperature

L9 ANSWER 2 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:177888 CAPLUS  
DOCUMENT NUMBER: 140:204830  
TITLE: Coated metal pigments for use in cosmetic formulations  
INVENTOR(S): Kaupp, Guenter; Schuster, Thomas; Kremitzl, Hans-Joerg; Sommer, Guenter  
PATENT ASSIGNEE(S): Eckart G.m.b.H. & Co. K.-G., Germany  
SOURCE: Ger. Offen., 3 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10238090	A1	20040304	DE 2002-10238090	20020821
WO 2004026268	A2	20040401	WO 2003-EP8729	20030807
WO 2004026268	A3	20040429		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			DE 2002-10238090 A	20020821

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AB The invention concerns metal pigments for cosmetic prepsns. that are coated with an inorg. or organic layer in order to avoid direct contact with the skin; the layers are sweat and saliva resistant. **Powders**, eyeliners, hair dyes, lipsticks, skin and hair care products, perfumes, eau de toilette, and lotions can contain the coated pigments. Disc-like metal pigments of 1-100  $\mu\text{m}$  diameter and 0.05-2  $\mu\text{m}$  thickness are formed; the coating is 10-500 nm. Copper, zinc, aluminum, iron, tin, titanium or their alloys are pigments; coatings are **metal oxides** or polymers.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:117396 CAPLUS

DOCUMENT NUMBER: 140:168644

TITLE: Production of high effective antimicrobial deodorants for air- and water purification

INVENTOR(S): Kikuchi, Nobuyoshi

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004041317	A2	20040212	JP 2002-200140	20020709
PRIORITY APPLN. INFO.:			JP 2002-200140	20020709

AB The antimicrobial deodorants are manufactured by applying solns. containing (A) antimicrobial deodorant agents selected from natural/synthetic zeolites, Mn oxide, Ni oxide, Co oxide, V oxide, Fe oxide, Al oxide, Cu oxide, Ag oxide, Ti oxide, Zn oxide, metals (e.g., Pd, Rh, Pt), **metal oxides**, carbides (e.g., Ca carbide, Si carbide), (B) binders (e.g., acrylic resins, vinyl acetate resins, ethylene-vinyl acetate resins, silicone resins, fluoro-resins, silicon-containing resins), and (C) auxiliary binders (e.g., PVA solns., CMC solns., MC solns., acrylic thickeners, starch, mannans) on grains or power selected from vermiculite, silica gel, (synthetic) pumice, Kanuma soil, Akadama soil, volcanic products, coal-combustion products (e.g., clinkers).

L9 ANSWER 4 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:971113 CAPLUS

DOCUMENT NUMBER: 140:30655

TITLE: Air-stable **metal oxide** nanoparticles

INVENTOR(S): Rajagopalan, Shyamala; Koper, Olga B.; Klabunde, Kenneth J.; Malchesky, Paul S.; Winecki, Slawomir

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 34 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2003226443 A1 20031211 US 2002-164901 20020607  
WO 2003103804 A1 20031218 WO 2003-US548 20030108

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,  
NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-164901 A 20020607

AB Comps. and methods for destroying chemical and biol. agents such as toxins and bacteria are provided wherein the substance to be destroyed is contacted with finely divided **metal oxide** nanoparticles. The **metal oxide** nanoparticles are coated with a material selected from the group consisting of surfactants, waxes, oils, silyls, synthetic and natural polymers, resins, and mixts. thereof. The coatings are selected for their tendency to exclude water while not excluding the target compound or adsorbates. The desired **metal oxide** nanoparticles can be pressed into pellets for use when a **powder** is not feasible. Preferred **metal oxides** for the methods include MgO, SrO, BaO, CaO, TiO<sub>2</sub>, ZrO<sub>2</sub>, FeO, V<sub>2</sub>O<sub>3</sub>, V<sub>2</sub>O<sub>5</sub>, Mn<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, NiO, CuO, Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, ZnO, Ag<sub>2</sub>O, the corresponding hydroxides of the foregoing, and mixts. thereof.

L9 ANSWER 5 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:868635 CAPLUS

DOCUMENT NUMBER: 139:371798

TITLE: Toner developer, method for image formation using the same, and process cartridge therefor

INVENTOR(S): Kasuya, Takashige; Takiguchi, Takeshi; Yamazaki, Katsuhisa; Hiratsuka, Kaori; Yoshida, Masahiro

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003316066	A2	20031106	JP 2002-117114	20020419

PRIORITY APPLN. INFO.: JP 2002-117114 20020419

AB The title developer contains toner, inorg. fine **powder** made of a **metal oxide**, and electroconductive fine **powder**, wherein the electroconductive fine **powder** has fine particles, of which diams. are smaller than the electroconductive fine **powder** particles, on the surface. The developer generates little discharge product and shows good developer characteristics.

L9 ANSWER 6 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:717035 CAPLUS

DOCUMENT NUMBER: 137:236416

TITLE: Refractory NZP-type structures, method for manufacture and applications

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INVENTOR(S): Cutler, Willard A.; Merkel, Gregory A.  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S.  
Ser. No. 671,722.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002132720	A1	20020919	US 2001-942186	20010829
US 6413895	B1	20020702	US 2000-671722	20000927

PRIORITY APPLN. INFO.:  
US 2000-671722 A2 20000927  
US 1999-157895P P 19991005

AB A structure made predominately of an NZP-type phase having the general formula  $RxZ_4P_6-ySi_yO_{24}$ , where  $0 \leq x \leq 8$ ,  $0 \leq y \leq 6$ , R is Li, Na, K, Rb, Cs, Mg, Ca, Sr, Ba, Y, and/or lanthanides, and Z is Zr, Ti, Nb, Ta, Y, and/or lanthanides, and optionally a sintering additive. The structure has an open porosity of  $\geq 20$  volume%, a certain median pore diameter ( $\mu m$ ), and a four-point modulus of rupture of  $\geq 300$  psi. The manufacturing method includes forming a raw material **powder** mixture containing **metal oxide** sources capable of reacting to form an NZP-type product, and/or pre-reacted **powder** having the above general formula. The volumetric average median diameter of the particles of the raw material **powders** is  $\geq 15 \mu m$ , and  $\geq 65$  volume% of them are  $> 11 \mu m$ . The mixture is molded into a green structure and fired. The resulting material is multicellular, e.g., a honeycomb, where a fluid stream enters the structure, passes through the cells and is acted upon, and exits the structure. The structure is preferably an alternately plugged honeycomb suitable for diesel particulate filter.

L9 ANSWER 7 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:205288 CAPLUS  
DOCUMENT NUMBER: 136:249088  
TITLE: Glossy coating compositions, coating process, and coated materials  
INVENTOR(S): Momose, Nobuhiko; Kunugi, Katsumi; Takahashi, Masashi  
PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002080792	A2	20020319	JP 2000-273746	20000908

PRIORITY APPLN. INFO.:  
JP 2000-273746 20000908

AB The compns. contain vehicles and glossy pigments comprising stainless steel flakes coated with **metal oxide** inner layers and silica outermost layers. Thus, an aluminum automobile wheel was coated with Powder A 30 Black, baked, coated with a composition containing styrene-Me methacrylate-Et methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-U-Van 20SE (melamine resin) copolymer, 20% blue TiO<sub>2</sub>- and silica-coated stainless steel flake, and baked, resulting in deep

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appearance.

L9 ANSWER 8 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:202290 CAPLUS

DOCUMENT NUMBER: 136:249109

TITLE: Low-gloss metallic coating compositions, coating process, and coated products

INVENTOR(S): Momose, Nobuhiko; Kunugi, Katsumi; Takahashi, Masashi

PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002080791	A2	20020319	JP 2000-273745	20000908
PRIORITY APPLN. INFO.:			JP 2000-273745	20000908

AB The compns., useful for aluminum automobile wheels, etc., contain  $\geq 1$  glossy pigments chosen from **metal oxide** -coated Al, stainless steel, and glass flakes, hollow ceramic fillers, and vehicles. Thus, an aluminum automobile wheel was coated with Powdex A 30 Black, baked, coated with a composition containing styrene-Me methacrylate-Et methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-U-Van 20SE (melamine resin) copolymer, 20% NIF Color ST (TiO<sub>2</sub>-coated stainless steel flake) and 10% E-Spheres (hollow ceramic filler), and baked, resulting in deep appearance comparable to foundry.

L9 ANSWER 9 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:126394 CAPLUS

DOCUMENT NUMBER: 136:169079

TITLE: Photocatalyst-containing composition for coating transparent substrate with good durability

INVENTOR(S): Kimura, Nobuo; Ono, Kazuo; Funamoto, Akihiko

PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002053772	A2	20020219	JP 2000-239829	20000808
PRIORITY APPLN. INFO.:			JP 2000-239829	20000808

AB Title coating composition with high transparency and without interference comprises (A) silicon compds. (e.g., acrylic silicone and partial hydrolyzates of tetramethoxysilane), (B) sols of **metal oxides** and/or hydroxides (e.g., colloidal silica IPA-ST), and (C) photocatalyst **powders** and/or sols (STS-01), wherein the solids content of C is 0.1-30 wt%, and the ratio of average diams. of B and C  $\geq 2$ .

L9 ANSWER 10 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:112904 CAPLUS

DOCUMENT NUMBER: 136:158757

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DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11204322	A2	19990730	JP 1998-22713	19980119

PRIORITY APPLN. INFO.: JP 1998-22713 19980119

AB The magnetic cores are obtained by press molding mixts. of Fe-Si-Al-based alloy **powders**, oxide **powders**, and binders. The method involves the following steps; (1) mixing Fe-Si-Al-based alloy atomized **powders** with oxide **powders** and (2) island-like dispersing the oxide **powders** in the alloy **powders** using pulverizers. The winding parts having the magnetic cores are also claimed. The magnetic cores are useful for transformers and inductors. The magnetic cores show high saturation magnetic flux d. and low hysteresis and residual loss.

L9 ANSWER 20 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1999:371395 CAPLUS  
DOCUMENT NUMBER: 131:9455  
TITLE: Cosmetic compositions containing organosilicon-coated **powders**  
INVENTOR(S): Horino, Masaakira; Takahashi, Hideki  
PATENT ASSIGNEE(S): Miyoshi Kasei Inc., Japan  
SOURCE: Fr. Demande, 48 pp.  
CODEN: FRXXBL  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2768151	A1	19990312	FR 1998-11255	19980909
FR 2768151	B1	20031128		
JP 11148028	A2	19990602	JP 1998-221551	19980805
US 6200580	B1	20010313	US 1998-149797	19980909

PRIORITY APPLN. INFO.: JP 1997-262735 A 19970910  
JP 1998-221551 A 19980805

AB Cosmetic compns. containing metal hydroxides or inorg. oxides coated with an organosilicon compound are claimed. A makeup composition contained beeswax 1.0, cetyl alc. 1.0, cetyl octanoate 1.0, squalane 10.5, PEG monostearate 1.7, sorbitan monostearate 12.8, Bu parahydroxybenzoate 0.1, silicon-coated iron oxide 2.1, silicon-coated Jaun citron mapico 0.9, silicon-coated **titanium oxide** 3.0, propylene glycol 8.0, carboxyvinyl polymer 20.0, xanthan gum 0.1, Me parahydroxybenzoate 0.2, water 47.5, and perfume 0.1%.

L9 ANSWER 21 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1999:298591 CAPLUS  
DOCUMENT NUMBER: 130:359260  
TITLE: Electrophotographic developer containing hydrophobic **metal oxide fine powder**  
INVENTOR(S): Komai, Eiji; Murota, Masamichi; Jono, Hirokuni  
PATENT ASSIGNEE(S): Nippon Aerosil Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 6 pp.

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CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11125927	A2	19990511	JP 1997-289522	19971022
PRIORITY APPLN. INFO.:			JP 1997-289522	19971022

AB The developer contains hydrophobic **metal oxide** fine **powder** prepared by hydrophobicizing **metal oxide powders** with sp. surface area 10-400 m<sup>2</sup>/g with a silane compound having epoxy groups, an amino group-containing organic compound, or an organopolysiloxane having reactive groups at both ends. The developer shows good flowability and charging property.

L9 ANSWER 22 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1999:182614 CAPLUS  
DOCUMENT NUMBER: 130:253738  
TITLE: Epoxy resin primer compositions for clear organic glasses and optical materials using them  
INVENTOR(S): Murai, Yukio; Uchida, Naoki; Murai, Yoshiko  
PATENT ASSIGNEE(S): Ito Optical Industrial Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11071535	A2	19990316	JP 1997-232737	19970828
PRIORITY APPLN. INFO.:			JP 1997-232737	19970828

AB The compns. applied between organic glasses and silicone-based cured coatings contain SH-terminated liquid polysulfides, uncrosslinked epoxy resins, curing agent for epoxy resins, and optionally **metal oxide** fine particles. The optical materials, useful for eyeglass lens, comprise organic glasses successively coated with the above primer compns., silicone-based cured coatings, and inorg. antireflective films. Thus, a primer composition containing Thiokol LP 3 10, Denacol EX 314 10, diacetone alc. 20, MEK 20, pyromellitic anhydride 5, and Fluorad FC 430 0.02 part was stirred at room temperature for 3 h, applied on a polythiourethane lens substrate by spin coating, dipped in a hard-coating composition containing hydrolyzed  $\gamma$ -glycidoxypropyltrimethoxysilane, Optlake 1130F-2, itaconic acid 50, and dicyandiamide 20 parts, cured at 100° for 2 h, and further coated with an inorg. oxide antireflective layer to give a test piece, which showed good adhesion, appearance, scratching, heat, water and impact resistance.

L9 ANSWER 23 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:795416 CAPLUS  
DOCUMENT NUMBER: 130:114777  
TITLE: Antioxidants and cosmetics containing titanium mixed oxide  
INVENTOR(S): Nishimura, Hiromutsu; Kamata, Tsutomu  
PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan

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SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10330236	A2	19981215	JP 1997-155773	19970529

PRIORITY APPLN. INFO.: JP 1997-155773 19970529

AB Title cosmetics, which protect skin from light by preventing lipid peroxidn. on skin, contain antioxidants comprising TiO2 containing 1-20 weight% **metal oxides** (except for Ti oxide) in crystal lattice. A mixture of ZrO2 5, Fe oxide 5, and TiO2 90 weight parts was calcined at 1200° to give a **powder**, which showed 68% inhibition of peroxidn. of squalene. A cosmetic was prepared from squalene 5, glyceryl trioctanoate 2, cetanol 2, stearic acid 0.2, polyoxyethylene behenyl ether 1, butylparaben 0.1, the **powder** 1, methylparaben 0.2, 1,3-butanediol 8, Carbopol 0.1, KOH 0.1, and H2O 80.3 weight parts.

L9 ANSWER 24 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:785579 CAPLUS  
DOCUMENT NUMBER: 130:53096  
TITLE: Surface-modified **metal oxide** fine particles and process for their production  
INVENTOR(S): Shibasaki, Takeyoshi; Murota, Masamichi  
PATENT ASSIGNEE(S): Nippon Aersoil Co., Ltd., Japan  
SOURCE: U.S., 7 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5843525	A	19981201	US 1997-801873	19970218
JP 09059533	A2	19970304	JP 1995-234802	19950821
JP 3229174	B2	20011112		

PRIORITY APPLN. INFO.: JP 1995-234802 A 19950821

AB By treating **metal oxide** fine particles having a sp. surface area of 5 to 500 m2 /g with a silane coupling agent and then further treating the fine particles with a reactive group-terminated organopolysiloxane, the organopolysiloxane is stably bonded to the surface of the **powder** particles, to thereby improve stability of the modifying effect against the elapse of time and durability.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 25 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:119264 CAPLUS  
DOCUMENT NUMBER: 128:223830  
TITLE: Toner for developing electrostatic image  
INVENTOR(S): Nosawa, Keita; Karaki, Yuki; Urawa, Motoo; Yusa, Hiroshi; Maruyama, Kazuo; Takano, Masao  
PATENT ASSIGNEE(S): Canon K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.  
CODEN: JKXXAF

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DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10048872	A2	19980220	JP 1996-216936	19960731

PRIORITY APPLN. INFO.: JP 1996-216936 19960731

AB The title toner comprises toner particles containing a binder resin and a colorant and, as an external additive, inorg. fine particles including **metal oxide** particles  $MxOy$  ( $M = Al, Ti, Zn, Zr$ ;  $x, y =$  pos. integer) with average particle size  $0.05-2.0 \mu m$  and has  $\geq 1$  endothermic peak in the region of  $\leq 120^\circ$  in DTA. Alternatively, the inorg. particles include composite **metal oxide** particles  $MxTiyOz$  or  $MxSiyOz$  ( $M =$  metal element;  $x, y, z =$  pos. integer) with average particle size  $0.1-3.0 \mu m$  or silicone oil-containing Si oxide particles or Si complex oxide particles with average particle size  $0.03-50 \mu m$ , and the toner may have the above-mentioned endothermic peak and shape factors, SF-1 and SF-2, measure by image anal., satisfying the following conditions:  $110 \leq SF-1 \leq 180$ ;  $110 < SF-2 \leq 140$ ; and the ratio of the value obtained by subtracting 100 from SF-2 to that by subtracting 100 from SF-1 is  $\leq 1.0$ . The inorg. particle may include inorg. carbide, metal carbonate particles, silicone oil-containing  $SiO_2$  or Si composite oxide with regulated average particle size and the toner may have the above-mentioned endothermic peak. Since the toner shows back-transfer from image-supporting substrate to photoconductor under high elec. current, high d. images are obtained.

L9 ANSWER 26 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1997:748349 CAPLUS  
DOCUMENT NUMBER: 128:4706  
TITLE: Characteristics of **powder** coatings tinted with inorganic pigments. The role of the type and the pretreatment of pigment surfaces  
AUTHOR(S): Thometzek, Peter; et al.  
CORPORATE SOURCE: Bayer AG - Krefeld Uerdingen, Germany  
SOURCE: Pitture e Vernici Europe (1997), 73(15), 39, 45-53  
CODEN: PVEUEO  
PUBLISHER: G.B.P. Communications  
DOCUMENT TYPE: Journal  
LANGUAGE: Italian/English

AB Surface treatments of inorg. pigments were carried out to enhance the high temperature stability of the pigments and their compatibility with formulation components in **powder** coatings. Pigments considered are  $TiO_2$ ,  $Fe_2O_3$ ,  $FeOOH$ ,  $ZnFe_2O_4$ , and mixed phase  $(Mn, Fe)_2O_4$ ,  $Cu(Cr, Fe)_2O_4$ ,  $Cr_2O_3$ ,  $Co(Al, Cr)_2O_4$ , etc. and stabilizers used are  $Al_2O_3$ ,  $ZrO_2$ ,  $SiO_2$ , aluminum phosphate, alcs., amines, and silicone oils. **Powder** coating formulations, e.g., epoxy-polyester, polyester, and polyurethanes using the modified pigments are described.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 27 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1997:435940 CAPLUS  
DOCUMENT NUMBER: 127:57997  
TITLE: Toner for developing electrostatic image, image-forming method and process-cartridge  
INVENTOR(S): Mikuriya, Yushi; Mizoh, Yuichi; Doujo, Tadashi

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PATENT ASSIGNEE(S): Canon K. K., Japan  
SOURCE: Eur. Pat. Appl., 43 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 774696	A2	19970521	EP 1996-308354	19961119
EP 774696	A3	19970528		
EP 774696	B1	20010613		
R: DE, FR, GB, IT				
US 5695902	A	19971209	US 1996-749635	19961115
JP 09204065	A2	19970805	JP 1996-309319	19961120
JP 3517534	B2	20040412		
CN 1159013	A	19970910	CN 1996-121732	19961120
CN 1113274	B	20030702		

PRIORITY APPLN. INFO.: JP 1995-323563 A 19951120

AB A toner for developing an electrostatic image is formed as a mixture of toner particles containing at least a binder resin and a colorant and an inorg. fine **powder**. The inorg. fine **powder** includes an inorg. fine **powder** (A) treated at least with a silicone oil and an inorg. fine **powder** (B) comprising a composite **metal oxide** including at least Si as a constituent element and having a weight-average particle size of 0.3-5  $\mu$ m. Because of the inclusion of the two types of inorg. fine **powders** (A) and (B), the toner is stably provided with a high flowability and a high triboelec. charge under various environmental conditions including low-humidity to high-humidity conditions. The toner is suitably used in an image-forming system including a contact-charging means, a contact-transfer means and a film-fixing system.

L9 ANSWER 28 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:309778 CAPLUS

DOCUMENT NUMBER: 126:279080

TITLE: Surface-modified **metal oxide** micropowders using organopolysiloxane with improved stability and durability and manufacture thereof

INVENTOR(S): Shibazaki, Takeyoshi; Murota, Masamichi

PATENT ASSIGNEE(S): Nippon Aerosil, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09059533	A2	19970304	JP 1995-234802	19950821
JP 3229174	B2	20011112		
US 5843525	A	19981201	US 1997-801873	19970218

PRIORITY APPLN. INFO.: JP 1995-234802 A 19950821

AB Title micropowders (sp. surface area 5-500 m<sup>2</sup>/g) are prepared by treating micropowders with silane coupling agents and organopolysiloxanes terminated by reactive groups at both ends. Thus, Aerosil 200, hexamethyldisilazane, and  $\alpha,\omega$ -dihydroxy di-Me

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**polysiloxane** were used to obtain title micropowder which was used in electrophotog. toner showing no fogging even after 20,000 photocopies.

L9 ANSWER 29 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1997:258149 CAPLUS  
 DOCUMENT NUMBER: 126:308308  
 TITLE: Mechanical strength and thermal stability of catalyst coatings based on ultrafine **metal oxide powders** and organosilicon adhesives  
 AUTHOR(S): Samoilov, N. A.; Mukhutdinov, R. Kh.  
 CORPORATE SOURCE: Ufim. Gos. Neft. Tekh. Univ., Ufa, Russia  
 SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (1996), 69(12), 2001-2004  
 CODEN: ZPKHAB; ISSN: 0044-4618  
 PUBLISHER: Nauka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB Ultrafine **metal oxide powders** bound with organosilicon adhesives have high mech. strength and thermal stability and can be used as catalytic coatings in reactors for the removal of organic pollutants from waste gases. The catalysts should be stabilized by heating for 8 h at 350°.

L9 ANSWER 30 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1997:106114 CAPLUS  
 DOCUMENT NUMBER: 126:268850  
 TITLE: Development of a catalyst coating formulation based on ultradisperse **metal oxide powders**  
 AUTHOR(S): Mukhutdinov, R. Kh.; Samoilov, N. A.  
 CORPORATE SOURCE: Ufim. Gos. Neft. Tekh. Univ., Ufa, Russia  
 SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (1996), 69(10), 1680-1684  
 CODEN: ZPKHAB; ISSN: 0044-4618  
 PUBLISHER: Nauka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB Catalyst coating formulations based on ultradisperse **metal oxide powders** and aqueous-mineral and silicon-organic binders were studied from the viewpoint of maximizing the mech. strength of the coating. The oxide **powder** samples studied were: (1) CaO, NiO, MnO<sub>2</sub>, CeO (3,3,2,2); (2) Fe<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub> (1:2); (3) CuO, Cr<sub>2</sub>O<sub>3</sub> (1:2); (4) CuO, Cr<sub>2</sub>O<sub>3</sub>, MnO<sub>2</sub>, CoO (2:1:1:1); (5) CuO; (6) CuO, CoO, Cr<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, NiO, MnO<sub>2</sub> (1:1:1:1:1:1); (7) CuO, Cr<sub>2</sub>O<sub>3</sub>, MnO<sub>2</sub>, CoO (1:1:1:1); and (8) ZrO<sub>2</sub>. The binders studied were: aqueous suspension of tech. calcium aluminate (talcum); aqueous suspension of talcum and gypsum; and toluene solution of polymethylphenylsiloxane resin. For the talcum aqueous solution and talcum and gypsum solution catalyst the mech. strength increases with increasing active-component content (up to 40-75%) and with increasing gypsum content (up to 15%). For the silicon-organic binder the mech. strength decreases with increasing active component content (in the range 25-50%). The silicon-organic binder catalysts have a higher mech. strength than the catalyst based on aqueous mineral binders.

L9 ANSWER 31 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1997:18415 CAPLUS  
 DOCUMENT NUMBER: 126:50560  
 TITLE: Photolysis catalysts containing **titanium**

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oxide and their manufacture for deodorization  
of air  
INVENTOR(S): Shibahara, Kazuo; Nakano, Hideyuki; Takano, Toshikatsu  
PATENT ASSIGNEE(S): Nippon Insulation Kk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08243402	A2	19960924	JP 1995-48703	19950308

PRIORITY APPLN. INFO.: JP 1995-48703 19950308

AB The catalysts comprise TiO<sub>2</sub> and oxidation accelerators, preferably simple substances, oxides, hydroxides, halides, and/or salts of transition, noble, and rare earth metals, e.g., Ni, Cr, Fe, Zn, Ti, Mn, Co, Mo, V, Sr, W, Pd, Au, Ag, Pt, La, Ce, Pr, Nd, Dy, Ho, Er, and Lu, on surface layers of inorg. curing materials. Preferably, the inorg. cured materials contain cement, synthetic Ca silicate, synthetic Mg silicate, and/or Mg carbonate. Optionally, surfaces of the catalysts have surface protective layers, preferably containing inorg. oxides, e.g., SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Sb<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, TiO<sub>2</sub>, SnO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, CeO<sub>2</sub>, WO<sub>3</sub>, and/or MoO<sub>3</sub>, or fluoro-resins and/or silicone resins. The process comprises spreading TiO<sub>2</sub> and oxidation accelerator **powders** on surfaces of inorg. moldings before curing and burying the **powders** in the moldings by pressing. The catalysts are used for air deodorants in houses, offices, factories, etc., and building materials.

L9 ANSWER 32 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1994:545339 CAPLUS  
DOCUMENT NUMBER: 121:145339  
TITLE: Electrophotographic developers with improved flowability  
INVENTOR(S): Nishihara, Akira; Nakamura, Akihiro; Murota, Masamichi  
PATENT ASSIGNEE(S): Mitsubishi Materials Corp, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06083099	A2	19940325	JP 1992-255715	19920831

PRIORITY APPLN. INFO.: JP 1992-255715 19920831

AB The title developers contain a **metal oxide powder** with a coating comprising an epoxy group-containing organopolysiloxane and a polyalkyleneimine. The developers show good charging properties and flowability. Thus, Aerosil 130 (silica) was coated with a composition containing polyethyleneimine, KF-101 (epoxy-modified **polysiloxane**), and KF-96 (dimethylpolysiloxane), heat-treated, and mixed with particles made from a styrene-acrylic resin, carbon black, and Nigrosine, and the resulting toner was mixed with an Fe oxide **powder** to give a developer.

L9 ANSWER 33 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

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ACCESSION NUMBER: 1992:140105 CAPLUS  
DOCUMENT NUMBER: 116:140105  
TITLE: Electrophotographic two component developer comprising  
toner and carrier with two coating layers  
INVENTOR(S): Ishikawa, Michiaki; Takagiwa, Hiroyuki; Shirase,  
Akizo; Nishimori, Hideki  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03231755	A2	19911015	JP 1990-27257	19900208

PRIORITY APPLN. INFO.: JP 1990-27257 19900208

AB The developer comprises (1) a coated carrier comprising a magnetic particle coated with an inner layer of resin containing elec. conductive metal **powder** and/or elec. conductive **metal oxide powder**, and an outer layer of resin with low surface energy, and (2) a toner comprising a colored particle and inorg. particle treated with ammonium-modified **polysiloxane**. The developer prevents scattering and gives high quality images without fog.

L9 ANSWER 34 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1991:68871 CAPLUS  
DOCUMENT NUMBER: 114:68871  
TITLE: Cosmetic **powders** treated with **metal oxides** and plastics  
INVENTOR(S): Hara, Shuichi; Kato, Hiroshi; Sakatani, Hisanori  
PATENT ASSIGNEE(S): Nonogawa Shoji Y. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02212414	A2	19900823	JP 1989-34259	19890214

PRIORITY APPLN. INFO.: JP 1989-34259 19890214

AB Cosmetic **powder** such as silica is treated with a plastic in which 0.001-0.3  $\mu$ m particle size TiO<sub>2</sub>, ZnO, and/or iron oxide had been dispersed. The **powder** has a UV-intercepting effect. TiO<sub>2</sub> treated with lecithin and di-Me **polysiloxane** (10 g) was dispersed into 10 g poly(vinyl chloride) in DMSO at 70°, mixed with 180 g talc under reflux, and concentrated to give poly(vinyl chloride)-TiO<sub>2</sub>-treated talc. An oily foundation comprised iron oxide 2, TiO<sub>2</sub> 15, the talc 20, mica 10, squalane 10, microwax 5, candelilla wax 2, antiseptics, and glyceryl isooctanoate to 100 weight%.

L9 ANSWER 35 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1989:619122 CAPLUS  
DOCUMENT NUMBER: 111:219122  
TITLE: Sunscreen cosmetics containing finely granulated **metal oxides** and **metal**

blessing

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INVENTOR(S): **oxide filaments**  
Tanaka, Toshihiro; Kumagai, Shigenori; Yokoyama,  
Hiroyuki  
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01143821	A2	19890606	JP 1987-302793	19871130

PRIORITY APPLN. INFO.: JP 1987-302793 19871130

AB Sunscreen cosmetics contain finely granulated **metal oxides** uniformly dispersed in other (complex) **metal oxide** filaments. The cosmetics are not sticky and are smoothly applied to the skin. (BuO)4Si (574 parts) was mixed with 100 parts TiO2 in BuOH, coated on a plate, burned at 100-900° for 11 h, pulverized, and sieved to give a composite **powder** containing 50:50 weight% filament SiO2 and finely granulated TiO2. A **powder** foundation comprised talc 20, the composite **powder** 20, ZnO 2, Fe oxides 2, di-Me **polysiloxane** 4, squalane 5, diisostearyl malate 3, sorbitan sesquioleate 1, an antiseptic agent, perfume, and mica to 100% by weight

L9 ANSWER 36 OF 36 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:445344 CAPLUS  
DOCUMENT NUMBER: 111:45344  
TITLE: Antireflective scratch- and heat-resistant plastic optical lenses and products  
INVENTOR(S): Shimoyama, Naoki; Taniguchi, Takashi  
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63197635	A2	19880816	JP 1987-29701	19870213
JP 05012681	B4	19930218		

PRIORITY APPLN. INFO.: JP 1987-29701 19870213

AB The title products for eye glasses and optical lenses are prepared by first coating the surface of plastic substrates with mixts. containing mainly organo **polysiloxanes** and inorg. oxide **powders**, then coating the surface with inorg. oxides, comprising ≥10% SiO2, and finally forming ≥2 coating layers on the surface. Thus, [γ-(glycidyloxy)propyl]trimethoxysilane 35.3, diethoxy[γ-(glycidyloxy)propyl]methoxysilane 106.8, and 0.05 N HCl 23.6 parts were stirred 30 min at 10° to give a hydrolyzate. MeOH 185, acetylacetone 11.1, silicone surfactant 2.5, 30% silica dispersion 333.3, and Al acetylacetonate 6.0 parts were added and mixed with the above composition. Then, a flat diethylene glycol bis(allyl carbonate) (CR 39) lens was coated with this composition, initially cured 12 min at 82°, and finally cured 4 h at 100° to form a hard coating. The lens was

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then coated with SiO<sub>2</sub>, ZrO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, and SiO<sub>2</sub> to coating thickness 0.5λ, 0.25λ, 0.25λ, and 0.25λ (λ = 521 nm), resp., to give an antireflective coated lens with scratch resistance rating A (A = no scratches, B = many scratches) and no cracking after 1 h at 70°, vs. B and cracking, resp., for a coating without the hard primer coating.

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